

Claims:

1. A method of making a genetic modification in a target gene of a plant cell comprising:
 - a) providing a DNA fragment having a length of between 400 and 800 nt and
5 having essentially the sequence of the targeted gene as modified or of the complement thereof, which fragment is not Watson-Crick bound to another nucleic acid;
 - b) introducing the DNA fragment into the plant cell; and
 - c) identifying the presence of the modified target gene.
- 10 2. The method of claim 1, wherein the DNA fragment is made substantially free of a complementary DNA prior to its introduction into the plant cell.
3. The method of claim 2, which further comprises the generation of a plant from the plant cell.
4. The method of claim 2, wherein the providing of the DNA fragment
15 comprises the separation of a biotinylated DNA strand from a complementary non-biotinylated DNA strand, wherein the fragment is either the biotinylated strand or the non-biotinylated strand..
5. The method of claim 1, which further comprises the generation of a plant from the plant cell.